

CLEAN VERSION OF SPECIFICATION AT PAGE 10, line 9 (now line 10) and line 17.



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TC 1700

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C1 10 Combustion products 8 from the combustion  
11 chamber pass through a flue gas heat exchange coil 9  
12 that is contained within a waste heat steam generator  
13 10, wherein the combustion products are cooled and  
14 steam 11 is generated. The cooled combustion products  
15 13 are further cooled by exchanging heat in a feed  
16 water exchanger 14 that produces heated water 15 that  
17 is supplied to the waste heat steam generator 10.

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C2 20 The hydrogen-rich stream 7 from the tubular  
21 catalytic reactor 3 is cooled in an exchanger 2 to a  
22 temperature typically in the range of 400°F-550°F  
23 whereupon the cooled stream 18 is introduced into a  
24 fixed-bed catalytic reactor 19 shown as surrounding  
25 steam generator 10, to effect a water gas shift  
26 reaction that converts a portion of the carbon monoxide  
to hydrogen and carbon dioxide by reaction with steam.  
The catalyst bed reactor typically contains a supported  
Cu/Zn catalyst and is commonly known in the industry as  
a low temperature shift reactor. The walls 20 of the  
low temperature shift reactor are in thermal  
communication with boiling water contained in the waste

1 heat steam generator. The heat released in the low

2 temperature shift reactor is thus beneficially

3 recovered to generate steam. The carbon monoxide

CD 4 concentration of the process gas 21 exiting the low

5 temperature shift reactor is typically less than 0.5%.

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